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FIRST NAMED INVENTOR ATTORNEY DOCKET NO. FILING DATE CONFIRMATION NO. APPLICATION NO 03/08/2001 2167 09/800,978 Kesar Saleem 079-146 7590 05/07/2003 Donald C. Casey EXAMINER Suite 100 LEE, BENNY T 311 North Washington Street Alexandria, VA 22314 ART UNIT PAPER NUMBER

DATE MAILED: 05/07 2003

Please find below and/or attached an Office communication concerning this application or proceeding.

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 $\mathbb{R}^{n}$  is a communication from the examiner in charge of your application, COMMISSIONER OF PATENTS AND TRADEMARKS

This application has been examined Responsive to communication filled on Emerging file	This action is made final.
A shortened statutory period for response to this action is set to expire Third (month(s),	
Failure to respond within the period for response will cause the application to become abandoned. 35	<u>'s trom</u> the cate of this letter,
Part The Following Attachment(s) are part of this action:	
Notice of References Cited by Examiner, PTO-892.  Notice of Art Cited by Applicant, PTO-1449  Notice of Informal	Drawing, PTO-548.
1. Licitice of informal	Patent Application, Form PTO-152
6.	
Part II SUMMARY OF ACTION	
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1 / Care   - 25	are pending in the applica.
Of the above, claims	
o over the state of the state o	are withdrawn from consider, and
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	have been cancelled.
Ar [_] Claims	are allowed.
4. \$\frac{7}{2} \cdot 0.2 \tau \tau \tau \tau \tau \tau \tau \tau	
121, 65	are rejected.
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	age objected to.
i. 0 sums are subje	ot to restriction or election requirement.
<ol> <li>This application has been filed with informal drawings which are acceptable for examination pumutter is incloated.</li> </ol>	irposes until such time as allonable suignati
1. Anomable subject matter having been indicated, formal grawings are required in response to this	
The connected or substitute drawings have been received on These  not acceptable (see exchanation)  These	drawings are. Tracceouples
not acceptable (see explanation).	
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The proposed drawing correction and/or the proposed additional or substitute sheet(s) has (have) been approved by the examiner. cisapproved by the examiner (see explanate).	of drawings, filed on
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The proposed drawing correction, filed, has been approved, the Patent and Trademark Office no longer makes drawing changes. It is now applicant's response	disapproved (see explanation
the Patent and Trademark Office no longer makes drawing changes. It is now applicant's responsemented. Corrections MAST be effected in accordance with the ilentifications.	nsibility to ensure that the dram.
corrected. Corrections MAST be affected in accordance with the instructions set forth on the a EFFECT DRAMING CHANGES", PTO-1474.	stiched letter "INFORMATION CONTRACTO
Asknowledgment is made of the claim for priority under 25 U.S.C. 119. The certified copy has	Theen received
teen filled in parent and marken marks	Zi poda received not because to
been filed in parent application, serial no. ; filed on; filed on;	
Since this application appears to be in condition for allowance except for formal matters, prosect accordance with the practice under Ex parts Quayle, 1935 C.D. 11; 453 O.G. 213.	ution as to the merits is closed in
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The disclosure is objected to because of the following informalities: Note that subheadings should be provided to delineate the different sections of the specification. Page 1, last line, note that "main desired" should be rephrased as -- desired main -- for clarity. Page 2, last line, should -- '/2|-- follow "wavelength" for a complete description? Page 4, line 2, note that each occurrence of "said" should be deleted as being unnecessary. Page 6, last line; page 7, lines 11, 15: note that "two of which..." should be respectively rephrased to provide a proper characterization. Page 9, line 14, note that "two 28 and 29..." should be rephrased for a proper characterization. Note that figure 2, in it's entirety, needs to be described in the specification.

Appropriate correction is required.

Claims 1-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, note that it is unclear what characterizes "onward transmission". Clarification is needed.

In claims 9, 10, 11, 13, note that it is unclear how "a reflector slit" and two reflector slits are intended to be related to the at least one...reflector slit".

For example, are such slit(s) intended to be a part of the "at least one...slit" or slits separate therefrom. Clarification is needed.

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In claim 16, note that the recitation "which at least reduces transmission..." renders the claim vague and indefinite, especially since the "at least" recitation appears to connote functions other than reducing transmission which are unspecified.

Clarification is needed.

Claim 25 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite in that it fails to point out what is included or excluded by the claim language. This claim is an omnibus type claim.

The following claims have been found objectionable for reasons set forth below:

In claim 2, 17, note that an axial direction should be defined relative to the earlier recited longitudinal axis".

In claim 3, note that "through its outer conductor via which" should be rephrased as -- extending through an outer conductor of the coaxial line through which -- for clarity of description.

In claim 4, note that -- at least one -- should precede slot for consistency of description.

In claim 6, note that  $\bigwedge$  Should precede mode (first occ) and "-1" for completeness of description.

In claim 7, note that waveguide should be correctly spelled as -- waveguide --.

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In claim 10, 11, 19, note that "the (outer/inner) conductor" should by respectively rephrased as -- an (outer/inner) conductor --.

In claim 17, note that "the cathode lead" should be rephrased as -- a cathode lead -- and "its should be rewritten as -- the energy -- for clarity of description.

In claims 18, 20, note that via should be rewritten as -- through -- for clarity.

In claim 19, note that "the said" should be rewritten as -- through -- for clarity.

In claim 19, note that "the said" should be rewritten as either -- the -- or -- said ---.

In claim 23, should 3/4 correctly be -- 3/4 --? If such is the case, then -- -- needs to be strictly defined within the claim.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States. Claims 1, 6, 7 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Cook.

Cook fig. 1 discloses a magnetron including on anode (1) with an interaction (or cavity) region (3) coaxially surrounding a cathode (2) aligned along a longitudinal axis. As depicted in fig. 3, an output means comprises a coaxial line (22).

As disclosed with respect to fig. 2, energy can be propagated in the N/2 (i.e. A) mode and in the N/2-1 (i.e. A) mode within the magnetron (e.g. see col. 3 ls 25-40). Accordingly, these modes, having well recognized field characteristic, inherently would have propagate in a coaxial

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waveguide mode and a cylindrical waveguide mode, respectively. Moreover, col. 3, ls 45-50 indicate a desirability to provide for reflectless operation by using a heavily loaded magnetron to reduce undesired coupling of undesired mode propagation (e.g. 1 mode).

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Tonks and Allaire et al pertain to output coaxial line coupling for magnetrons.

Any inquiry concerning this communication should be directed to Benny Lee at telephone

number 308-4902.

BENNYT LEE

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ART UNIT 2017

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